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AND

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ANOTHER TROPICAL SPECIES OF LEPIDOPTERA IN FLORIDA.

By G. H. FRENCH, Carbondale, Ill.

In the September number of ENTOMOLOGICAL NEWS, p. 105, Mr. Dyar describes two species of insects new to our fauna, *Callidryas statira* and *Composia fidelissima*. I have had for about a year another species of *Composia* collected in Florida by Prof. Velie, of Chicago, during the Winter of 1888 and 1889, and sent to me by my friend, Mr. W. E. Longley, of the same city. Not having the means of identifying the specimen I sent a colored print of it to Mr. A. G. Butler, of London, who writes that it is *Composia olympia* Butl. From comparison of Mr. Dyar's description with my specimen it seems to be closely related to *C. fidelissima*. The following figure and description will show the points of difference.

Composia olympia Butl. Expanse 2.5 inches. Black, the fore wings with three bright scarlet, nearly quadrate spots between the costal and subcostal veins, extending from the base to the middle of the cell; a square white spot beyond the third scarlet one; just beyond the end of the cell a transverse row of six white spots of varying size, the last the largest and a little below the

line of the others, the fifth the smallest; beyond this row and about half way to the apex is another row of four white spots, the last out of line of the others; a small spot at the posterior angle; all of these transverse spots more or less rounded. In the cell are two narrow bars that do not quite reach from vein to vein, the outer white, but the inner white, strongly washed with scarlet.

The hind wings have a subterminal row of nine white spots, the first, fourth and ninth, small; the second largest. The fore wings show blue reflection in oblique light in the cell up to near the first bar, in the outer part of the cell about the end, at the base below the cell and along the posterior margin. In the same light the hind wings show blue reflection above the subcostal vein almost to the apex, in the cell to its end, below the cell and lower branch of submedian vein to the outer margin. Head with eight white dots; back of antennæ, below antennæ, above the eye and back of the eye. Collar with a row of six white dots. Thorax with six white dots on the anterior part and a row of four pale yellow dots across the posterior. Abdomen blue by reflection.

Beneath, the white spots of the upper side repeated, the space of the scarlet spots solid scarlet and confluent with the first bar in the cell, this bar having no white in it as it has above. The blue reflection is more pronounced than it is on the upper surface. The abdomen is banded with pale yellow and black, the terminal pale band whitish.

According to Mr. Butler this seems as yet to be a rare species, though Prof. Velie took about a dozen recently. The type specimen was from Brazil; it has been taken in Central America and once before at Key West, Fla.

ALETIA ARGILLACEA Hüb., was seen sparingly the last week in September at Columbus, O. I have not yet seen it in abundance here, whilst at Buffalo, N. Y., scarcely an Autumn passes without the appearance of many. If my observations accord with facts, why the greater abundance at the point so much further from the cotton fields?—D. S. KELLICOTT.

Description of three new species of African Hesperidæ.

BY REV. W. J. HOLLAND.

The appended descriptions are all of species belonging to the genus *Proteides* Hüb. I hope shortly to be able to publish figures of these and a number of other species.

1. **Proteides margaritata** n. sp.

Allied to *P. erinnys* Trim. Upperside: *Anteriors* broadly dark brown, clothed with greenish yellow hairs at the base, and having the following markings: three small subapical spots arranged in a series curving outwardly from the costa toward the external margin, a quadrate spot at the end of the cell, a square spot beyond the end of the cell between the second and third median nervules, below this between the first and second median nervules a spot resembling an hour-glass, and between the first median nervule and the submedian vein two triangular spots, of which the one nearest the base is obscure, being overlaid by the greenish hairs which cover the base. All of these spots are vitreous. *Posteriors* with the outer third and anterior margin broadly dark brown, cell and middle area pale orange, covered with greenish hairs at the base and intersected by the dark brown nervules. The outer margin at the anal angle is broadly orange red.

Underside: *Anteriors* fuscous, clouded with deep black at the apex and the middle of the disc, and broadly stramineous on the inner margin. The subapical area is irrorated with minute white scales. The spots of the upper surface reappear, but are not so distinct and sharply defined; the subapical series and the spot at the end of the cell are surmounted toward the costa by broad spots of nacreous. The end of the cell is also defined by a very narrow line of the same color. *Posteriors* of the same color as the primaries, clouded with dark brown on the outer third, and having the middle area ornamented by a very broad and irregular spot of pearly white. The anal angle is more narrowly orange than the upper surface; the upper surface of the abdomen is fuscous, annulated with pale yellow; the lower surface of the abdomen is not so distinctly annulated with pale gray. Antennæ black upon the upper side, fuscous below. Expanse of wings 48 mm.

Hab.—Valley of the Ogove. Type in coll. Holland.

2. **P. iricolor** n. sp.

Upperside uniformly dark brown, showing in certain lights a golden-green gloss. Fringe at the anal angle of the posteriors broadly white.

Underside: *Anteriors* with the anterior margin and the apical third violet-green. The lower half of the cell and the middle third of the wing is brown without any iridescence, and the posterior margin is very broadly pearly-white. There is a crimson spot on the costa at the base. *Posteriors* violet-green, with a beautiful iridescence in certain lights, the violet tints deepest toward the inner margin and the anal angle, where the wing inclines to black. There is a crimson spot at the base, two longitudinal spots of velvety-black in the cell, and a discal series of rounded spots of the same color, of which the one nearest the anal angle is bifid. The fringes at the anal angle are white, as upon the upper surface. The head, thorax and abdomen are of the same color as the wings upon the upper side; the lower side of the abdomen is ochreous. The antennæ are black above and ochreous below. Expanse of wings 55 mm.

Hab.—Valley of the Ogove. Type in coll. Holland

3. **P. laterculus** n. sp.

Allied to the preceding, but smaller.

Upperside: The entire upperside of the wings, head, thorax and abdomen, is dark brown. The fringes of the posteriors near the anal angle are light fuscous.

Underside: The ground color is the same as upon the upper surface; the inner margin of the primaries is broadly white. The base and middle area of the secondaries is brick-red; there is a large circular spot of velvety-black at the end of the cell in the secondaries, and a series of five discal spots of the same color following this. The series is interrupted opposite the cell, the three largest spots being placed after the third median nervule. The fringes at the anal angle, and the tip of the abdomen on the underside are stramineous. Expanse of wings 38 mm.

Hab.—Valley of the Ogove. Type in coll. Holland.

(To be continued.)

ELEMENTARY ENTOMOLOGY.

Sixth Paper.—The Wings.

The wings of an insect are membranous expansions of the body wall. They first appear in the pupal or later nymphal stages as flat, sac-like projections near the lateral borders of the terga of the meso- and metathorax. As the wings develop, the greater part of the dorsal and ventral walls of this flat sac become closely united. Along certain lines, both the dorsal and ventral walls become thickened. These lines are so situated that when the union of the two walls takes place, those on the dorsal wall coincide with those on the ventral wall; they thus form the frame-work of the wings, and are called *veins*, *nerves*, or *nervures*. Many veins enclose a tube formed by the union of two grooves, placed one on the inner or opposing side of each of the two thickened lines. Through these tubes blood circulates; often a trachea exists in the centre of this tube. The veins or nerves of an insect's wing do not correspond to the similarly named parts of higher animals.

That part of the wing by which it is attached to the thorax is the *base*. The shape of the wing is roughly triangular; its three edges, borders, or margins, receive distinctive names; the front edge is also called the *costal* margin, or simply the *costa;* the outer edge is also termed *apical*, the remaining border is known as the *inner*, *hind*, or *anal* margin. The *apex* of the wing is the angle where the front and outer margins meet. The inner and outer margins meet at the *hind* or *anal* angle.

All the veins of a wing taken collectively constitute the *venation*, *neuration*, or *reticulation*. The venation is regular, and although differing very much in various groups of insects, is based on a general plan. Five (or more) large veins run from the base towards the apical border, diverging from each other. These veins branch; at right angles to these large veins and their branches are other short veins. The branches of the large veins are sometimes known as *sectors*. Each litttle area or space of the wing, bounded by veins, is called a *cell*, or *cellule*. No general nomenclature has yet been established for the venation of all the groups of insects; for each group a special nomenclature is in use.

The front wings may be specialized so as to form protective covers for the hind wings. In beetles and earwigs the front wings

are thick and horny, and are termed *elytra*. In water-bugs and others, they are similar to elytra, but the apical part is membranous, hence their name of *hemelytra*. In grasshoppers and katydids they are leathery, or parchment-like, and are called *tegmina*.

Many insects, even of those groups which, as a general rule, undergo a complete transformation, are wingless. Sometimes only the front wings are present; the hind wings are then usually represented by a pair of small club-shaped organs—the *halteres*, *balancers*, or *poisers*—as in the common house-fly. Rarely the hind wings only are present, in which case the front wings are represented by organs similar to the halteres, but distinguished from them as *pseudo-halteres*. P. P. C.

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CICINDELIDÆ OF A SEASON.

BY CHAS. LIEBECK.

This has been the most successful season for *Cicindelæ* that has occurred during my experience in Coleoptera collecting. Of nineteen species and varieties occurring in eastern Pennnsylvania and southern New Jersey, fourteen have been taken by me this season.

The species follow in order as they are listed, with some reference to their occurrence during former years.

Tetracha virginica Linn.—Nocturnal in habits, a few specimens being taken in open fields under boards and fence rails, middle of July, at Abington, Pa.

Cicindela unipunctata Fab.—Reported as occurring at Atco and Woodstown, N. J. One of the species not taken this season.

C. modesta Dej.—Not taken as abundantly this season as in previous years, but scattered individuals taken in May, June and July, in all sections of southern New Jersey, in which any collecting was done. Two days in May, 1887, over one hundred specimens were taken in a space, not more than sixty feet square, below Gloucester, N. J. A second brood appears in September.

C. 6-guttata Fab.—Twelve or fifteen specimens were taken under the bark of fallen trees along the banks of Cobb's Creek, Philadelphia, early in April, and a number on the wing the first week in May. Some have also been taken in July.

C. patruela Dej.—Occurs at Lancaster, Pa.; not taken this season.

C. consentanea Dej.—Occurred several years ago below Gloucester, N. J., but none taken in that locality recently. Collected by Dr. Hamilton, at Absecom, N. J., in September.

C. purpurea Oliv.—A common species occurring in May and June in almost every locality. Several specimens were captured on the wing at DaCosta, N. J., March 15, 1886, on sandy spots along the line of the railroad, when ice and snow still lay unmelted between the ties.

C. generosa Dej.—Taken during May and June at Westville, Atco and Hammonton, N. J.; most abundant the last week in May, but few being taken the latter part of June.

C. vulgaris Say.—Isolated specimens taken at different times during the season at Philadelphia, Pa., and Landisville, N. J. One specimen was taken in company with *C. purpurea* at DaCosta, March 15, 1886.

C. repanda Dej.—An early species common everywhere.

C. 12-guttata Dej.—Usually found on the banks of small streams early in May; abundant locally.

C. hirticollis Say.—Found on a small beach on the Delaware River below Gloucester, N. J., and everywhere along the beach at the sea-shore, where the white sand mingles with the mud of the meadows and forms a composition of a dark hue. May, June and July.

C. punctulata Fab.—An abundant species throughout the whole season everywhere. Taken without intervals from May to September. Often attracted to the electric lights at night.

C. tortuosa Dej.—I know of but two specimens ever taken in New Jersey several years ago at Atlantic City, one by Dr. Castle and the other by myself, and have not yet been able to determine whether they actually inhabit this district, or were only accidental introductions.

C. dorsalis Say.—A very common species at the sea-shore, along the water's edge, where sometimes hundreds can be seen within the scope of the eye. Most abundant in July; sometimes an all white variety is taken.

C. marginata Fab.—I found these on the meadows between Sea Isle City, N. J., and the main shore, inhabiting the dry, bare spots, quite abundant in the latter part of July. Have never noticed this species in the sand-hills or on the beach.

C. lepida Dej.—A species peculiar to the sand-hills along the

New Jersey coast. It has, to my knowledge, been taken in all the hills from Atlantic City to Cape May; occurs during the latter part of July, and is, owing to its color and the intense whiteness of the sand, both difficult to see and to capture.

C. marginipennis Dej.—A species occurring in the mountain districts of eastern Pennsylvania, of which I know very little, not having taken any specimens.

C. abdominalis Fab.—Has frequently been reported as occurring at DaCosta, N. J., and although I have made it a point for several years to be in that neighborhood at the time of its appearance, have never, until this season, been fortunate enough to see any. During the last week in June ten or twelve specimens were seen between Hammonton and DaCosta, N. J., the majority of which were captured. It frequents the wagon-roads through the woods, and does not confine itself to any particular locality as other Cicindelæ do, those that were observed being scattered in ones and twos over the entire distance.

Notes and News.

ENTOMOLOGICAL GLEANINGS FROM ALL QUARTERS OF THE GLOBE.

[The Conductors of ENTOMOLOGICAL NEWS solicit, and will thankfully receive item of news, likely to interest its readers, from any source. The author's name will be given in each case for the information of cataloguers and bibliographers.]

In the future all papers received for publication in the News will be printed according to date of reception.

NOTE ON THE MOLTING OF PHOBETRON PITHECIUM, S. and A.—A larva of this species was observed to molt in the following manner: When preparing to cast its skin it rested on a leaf, the head withdrawn beneath joint 2 in the usual position of rest of larvæ of this group. The skin appeared loose, the long subdorsal processes shrunken, especially at the bases, there tips transparent from the partial withdrawal of the inner part. The larva jerked itself and rocked from side to side till the skin broke along the dorsal line from the head to the last segment simultaneously. As the chitinous part of the head of this insect does not extend up as far as in other subfamilies of Bombycidæ; the new head was readily withdrawn and the larva extricated itself from its skin by a lateral oscillatory movement, at the same time walking forward a little, which served to draw out the subdorsal processes from their old enclosing skin. They were bent backward by the operation nearly in line with the body, and were seen to be attached to the body by a slight white filament, but it

was not observed whether they were attached to the anterior or posterior edge of a segment (they are situated over each segmental suture between joints 3–13 inclusive, the last pair very small). As the new processes are withdrawn from inside the old ones and not formed under the body skin like the hairs of the Arctiinæ, it will be seen that a process once lost cannot be replaced, and, in the present instance, four of the normal twenty were lacking both before and after the molt. As this larva is well known, I will not enter upon a detailed description of it here, but will remark that the ends of the three pairs of long processes (the third, fifth and seventh pairs) appear to be slightly moveable at the will of the larva.

HARRISON G. DYAR.

THERE is a form of *Ergates spiculatus* Lec. (♀), which occurs in Wet Mountain Valley, Colorado, differing from the type as represented in the British Museum collection from the Pacific region, and figured by LeConte in having the elytra marked with whitish between the veins, and pale about the apices, where the dark color gradually becomes subobsolete. The thorax on the other hand, is quite dark. This form perhaps indicates a tendency to that sexual dichroism which is, as pointed out to me by Mr. Gahan, so well marked in certain other Longicorns; or, it may be a climatic race, a product of the drier central region of North America. In structure this species already presents secondary sexual characters which have led to the sexes being described as different species, but normally the sexes do not differ in color. This pale-marked ♀ form of *E. spiculatus* has been mentioned by Leng, but apparently it has received no name; it may be conveniently known as var. *marmoratus*. From one of my specimens of this variety (now in the British Museum) I extracted an egg, which, in its dried state, is pale amber color, elongate, subcylindrical, attenuate at the ends; length, 2¾ mm.; breadth, 1 mm.—T. D. A. COCKERELL.

THE fact mentioned above is by no means rare in its occurrence in the specimens received from Oregon and Washington, nor is it by any means peculiar to the female. The discoloration is not due to climatic influences, as it is equally observed in specimens from the dry regions of the centre of the continent and the notoriously damp climate of the Northwest. They seem to me merely imperfectly chitinized specimens, hardly deserving a varietal name. Such discolorations seem quite common in those Coleoptera with a coriaceous elytral texture. They are probably the result of a reduction of temperature during the evolution of the imago.

GEO. H. HORN.

STINGING POWERS OF VESPA VULGARIS AND ICHNEUMON SUTURALIS. —A few days ago Mrs. Gillette called my attention to a dead (?) wasp upon the window that she had killed, so that it would not sting our little daughter, who would be sure to try to catch the "bug" if she saw it. The wasp was a specimen of *Vespa vulgaris*, and the blow that was supposed to have killed it had entirely severed the abdomen from the rest of the body. Nothing more was thought of the wasp until the next day, twenty-

four hours later, when the screams of the little girl called her mother to the scene. The child had picked up the pretty abdomen of the wasp and had received a severe sting to pay her for her curiosity. The abdomen at this time seemed thoroughly alive. How much longer it would have retained its power to sting, had it not been destroyed, I am unable to say.

STINGING POWER OF ICHNEUMON SUTURALIS.—While collecting a few days since a female *I. suturalis* lit upon a bush just in reach of me. With a quick sweep of the hand I caught it, and held it, while, with the other hand, I got out my cyanide bottle. As I was about to bottle my capture I received a thrust in the palm of my hand that led me to suspect that in my haste I had mistaken a wasp for an *Ichneumon*, and I quickly dropped it. The culprit was recaptured and proved to be, as stated above, *I. suturalis*. The sting was like the thrust of a pin, there being no swelling of the part and no pain after the first two or three seconds.

I had, previous to this, watched *Ichneumons* in their attempts to sting while holding them in my hand, but this is the first time that one has really succeeded in producing anything like a sting.—C. P. GILLETTE.

Identification of Insects (Imagos) for Subscribers.

Specimens will be named under the following conditions: 1st, The number of specimens to be limited to twelve (12) for each sending; 2d, The sender to pay all expenses of transportation and the insects to become the property of the American Entomological Society; 3d, Each specimen must have a number attached so that the identification may be announced accordingly. Such identifications as can be given will be published, according to number, in the issues of the NEWS. Address packages to ENTOMOLOGICAL NEWS, Academy Natural Sciences, Logan Square, Philadelphia, Pa.

EUGENE R. FISCHER.—1, *Episcopus ornatus;* 2, *Proconia* sp. (*confluens?*); 3, *Proconia* (*confluens?*); 4, *Stenarops malinus;* 5, *Nysius californicus.*

O. S. WESTCOTT.—1, *Cœnonympha ochracea;* 2, *Rheumaptera hastata;* 3, *Melipotis* sp.; 5, *Megachile latimanus;* 6, *Sparnopolius fulvus;* 9, *Scatophaga stercoraria;* 10, *Scatophaga squalida;* 11, *Dendroctonus* sp.; 12, *Dendroctonus* sp.

F. S. DAGGETT.—1, *Chalcophora virginiensis;* 2, *Rhagium lineatum;* 3, *Cryptus nuncius;* 4, *Buprestis fasciata;* 5, *Harmonia 14-guttata;* 6, *Coccinella monticola;* 7, *Coccinella transversoguttata;* 8, *Harmonia 12-maculata*; 9, *Hippodamia parenthesis;* 10, *Harmonia picta;* 11, *Pogonocherus mixtus;* 12, *Hippodamia 13-punctata.*

Entomological Literature.

TRANSACTIONS ENTOMOLOGICAL SOCIETY LONDON. Part 3, 1890.—On the structure of the terminal segment in some male Hemiptera, by Dr. David Sharp. On the classification of the Pyralidina of the European fauna, by E. Meyrick. Additions to the Cicindelidæ fauna of Mexico, with remarks on some of the previously recorded species, by Henry Walter Bates. A Catalogue of the Rhopalocerous-Lepidoptera collected

in the Shan States, with notes on the country and climate, by Neville Manders. Notes on the species of the families Lycidæ and Lampyridæ, contained in the Imperial Museum of Calcutta, with descriptions of new species, and a list of the species at present described from India, by Rev. Henry S. Gorham. On some new species of African diurnal Lepidoptera, by Philip Crowley.

THE WEST AMERICAN SCIENTIST, September, 1890.—New Coccids from California, by D. W. Coquillett.

PROCEEDINGS AND TRANSACTIONS OF THE LIVERPOOL BIOLOGICAL SOCIETY, vol. iv, p. 170.—The post-embryonic development of a gnat (*Culex*), by C. Herbert Hurst.

ANNALS AND MAGAZINE OF NATURAL HISTORY, vol. vi, No. 34.—Description of some new species of African butterflies in the collection of Capt. G. E. Shelley, by E. M. Sharpe.

PROCEEDINGS OF THE ZOOLOGICAL SOCIETY OF LONDON. Pt. 3, 1890. —On some new moths from India, by H. J. Elwes. On a collection of Acarina found in Algeria, by A. D. Michael. Descriptions of new species of Lepidoptera-Heterocera from Central and South America, by Herbert Druce. On a collection of Lepidoptera made by Mr. Edmund Reynolds on the rivers Tocantins and Araguaya in the Province of Goyaz, Brazil, by Emily Mary Sharpe.

BIOLOGIA CENTRALI-AMERICANA. Part 87, August, 1890.—Coleoptera: vol. iv, pt. 2, by G. C. Champion, pp. 185–216, plates 8, 9; vol. vi, pt. 1, suppl., by M. Jacoby, pp. 201–208. Lepidoptera:-Rhopalocera: vol. ii, by F. D. Godman and O. Salvin, pp. 185–208, pl. 65. Rhynchota-Heteroptera, by W. L. Distant, pp. 345–352, pl. 32. Diptera: vol. ii, by F. M. Vander Wulp, pp. 177–200.

ESSAY ON THE DESTRUCTION OF THE MOSQUITO AND HOUSE FLY, by William Beutenmüller, 180 pp. 2 plates. This interesting essay was presented in competition for the prize offered by Dr. Lamborn, of New York, for the best on the subject. It gives an account of the anatomy, life-history and development of the mosquito, remedies against and an account of its natural enemies. A catalogue of the described transformations of the Odonata of the world is appended.

BERLINER ENTOMOLOGISCHE ZEITSCHRIFT XXXV, heft 1, 1890.—Lepidopterological notes from Sumatra, by Dr. L. Martin. The Bee genus *Dasypoda* Latr.,* by A. Schletterer; 1 pl. African Fulgoridæ,* by Dr. F. Karsch; 1 pl. *Paropioxys*, *Metoponilys*, *Anecphora*, *Paranotus*, *Euryprosthius*, *Phædolus*, *Conoprosthius*, *Aulophorus* n. gen. Contributions to the knowledge of the Lepidopterous fauna of Amurland, iv,* by L. Graeser. Contribution to the knowledge of the singing Cicadas of Africa and Madagascar,* by Dr. F. Karsch; 2 plates; 74 species are enumerated; *Lacetas*, *Ligymolpa*; *Pæctira*, *Musoda* n. gen. Description of the colors

* Contains new species other than North American.

of the larva of *Papilio oxynius*, by Dr. J. Gundlach. Two new Buprestids from the Malayan Archipelago,* and *Agestrata lata* n. sp., by Dr. Richter. A new Buprestid from East Africa,* and a new Cetonid from East Africa,* by G. Quedenfeldt. *Akis Schweinfurthi* n. sp., by M. Quedenfeldt; from Egypt.

ANNALEN DES K. K. NATURHISTORISCHEN HOFMUSEUMS, v, No. 2, Wien, 1890.—The Hymenopterous group of the Sphecinæ I. Monograph of the natural genus *Sphex* L.* (sens. lat.), first part, by F. F. Kohl; 5 plates; *S. morio*, Brit. Columbia; *S. præstans*, California; *S. neoxenus*, Vancouver Island; *S. excisus*, Vancouver Island; *S. clavipes*, Cuba; *S. chrysophorus*, Mexico; *S. Maximiliani*, Mexico; *S. spiniger*, Mexico, Brazil; new species from North America.

MATERIAUX POUR LA FAUNE ENTOMOLOGIQUE DU LIMBOURG, Coleopteres 3e centurie, Hasselt, 1890.—Materiaux pour la Faune Entomologique de la Province de Brabant. Coleopteres, 5e centurie, Bruxelles, 1890; both by A. P. de Borre.

BULLETINO DELLA SOCIETA ENTOMOLOGICA ITALIANA, xxii, 1890.—On a series of newly discovered secretory organs in the silk worm, by E. Vernon; 4 plates. Notes on some epizoic insects, by M. Bezzi: *Pulex tuberculaticeps* n. sp. on *Ursus arctos* L. Studies on some Formicidæ of the Neotropic Fauna, by C. Emery; 5 plates; I. Formicidæ of Costa Rica, a list of 107 species, with notes, 18 of them new species or races; II. On some new species of the genus *Pseudomyrma*, including new species from Central America, etc.; III. New American forms of the genera *Strumigenys* and *Epitritis*, etc.

ARCHIV FUR NATURGESCHICHTE, lvi, 1 band, 2 heft. Published Aug., 1890. Contains the bibliographical summary for Entomology for 1889, by Dr. Ph. Bertkau.

IL NATURALISTA SICILIANO, ix, 9.—Supplement to the Review of the Milabridæ (Bruchidæ), by F. Baudi. Conspectus of the Scymænidæ collected by Lotharius Hetschko in Southern Brazil near Blumenau, by E. Reitter and F. Croissandreau.

COMPTE RENDU. SOCIETE ENTOMOLOGIQUE DE BELGIGQUE 6 Sept., 1890.—Psychidological Notes,* by Dr. F. J. M. Heylaerts. Note on the Chrysobothridæ,* by C. Kerremans; *Pseudactenodes* n. gen. Description of a new species of Elateridæ of the genus *Dicronychus* (Eschscholtz),* by G. Dumont. Descriptions of four new species of the family Chrysomelidæ,* by A. Duvivier. Notes on the Elateridæ of Chota-nagpore,* by E. Candéze. Causeries Odonatologiques, No. 2, by E. de Selys-Longchamps.

REVUE BIOLOGIQUE DU NORD DE LA FRANCE, October, 1890.—Materials for the Entomological fauna of Flanders; 4th century. Coleoptera,

* Contains new species other than North American.

by A. P. de Borre. Acarinæ observed in France (first list), by R. Moniez. Galls observed in the North of France, by H. Fockeu (supplementary list).

SITZUNGSBERICHTE UND ABHANDLUNGEN DER NATURWIS. GESELL. ISIS IN DRESDEN, 1890, January–June. On mimicry, by Dr. J. Thallwitz; contains a number of references to insects.

BULLETIN DE LA SOCIETE PHILOMATHIQUE DE PARIS, 8e serie, II, No. 3, 1890.—Note on some fossil insects of the coal measures which bear aliform appendages on the prothorax, by C. Brongniart.

ZOOLOGISCHER ANZEIGER, Oct. 13, 1890.—Analytical chemical researches on living larvæ, pupæ and butterflies, by E. Verson.

ANNALES DE LA SOCIETE ENTOMOLOGIQUE DE FRANCE, 6e serie, ix, 1889–90.—Coleoptera of the interior of China,* fifth part, by L. Fairmaire; *Stenonota*, *Corægrilus*, *Sallumia*, *Phyllolytus*, *Pasurius*, *Trymatoderus*, *Merarius*, *Hemadius*, *Talmonus*, *Osnaparis*, *Sepharia*, *Semacia*, *Tebalia*, new genera. Coleoptera of the North of Africa,* by L. Bedel. New, or little-known Cucujidæ,* seventh memoir, by A. Grouvelle, one plate. Lepidopterological Notes, second part, by C. Jourdheuille (on *Eupithecia valerianata* Hüb.). New, or little-known Diptera,* 34th part, by J. F. M. Bigot (Empidi); includes the following new species from North America: *Rhamphomyia Morrissoni*, *R. pachymera*, *R. nigrita*, *R. geniculata*. Contributions to the Indo-Chinese fauna: first memoir, Cicindelidæ and Elateridæ,* by E. Fleutiaux; second memoir, Hydrocanthares,* by Dr. M. Regimbart. Voyage of M. E. Simon to Venezuela: second memoir, Coleoptera,* by A. Grouvelle, 1 plate; third memoir, Coleoptera,* by A. Léveillé, fourth memoir, Arachnida,* by E. Simon; *Pseudidiops*, *Phæoclita*, *Celidotopus*, *Rhytidicolus*, *Accola*, *Psalistops*, *Stothis*, *Euthycælus*, *Epipedesis*, *Adranochelia*, *Stichoplastus*, *Ozopactus*, *Paratropis*, *Cosmopelma*, new genera; fifth memoir, Coleoptera (Lathridæ),* by M. J. Belon. Diagnoses of new, or little-known Lycidæ,* sixth part, by J. Bourgeois. Expedition of M. Ch. Allaud into the territory of Assinie (West Africa); first memoir, Lycidæ,* by J. Bourgeois; second memoir, Dytiscidæ and Gyrinidæ,* by Dr. M. Regimbart. Expeditions of M. E. Gounelle to Brazil. Temnochilidæ,* by A. Léveillé. A new *Boarmia*, etc., by C. Blachier, one plate; notes the occurrence of *Vanessa virginiensis* Dru. (*Huntera* Fab.), in the island of Teneriffe. Contributions to the Indo-Chinese fauna; third memoir, Carabidæ,* by H. W. Bates; *Arhytinus* n. gen.; fourth memoir, Cryptocephalidæ, Clytridæ and Eumolpidæ,* by E. Lefevre. Expedition of M. C. Allaud into Assinie, etc.; fifth memoir, Eumolpidæ, by E. Lefevre. Contributions to the Indo-Chinese fauna; sixth memoir, Galerucidæ and Alticidæ,* by E. Allard. New, or little-known Diptera,* 35th part, by J. F. M. Bigot (Cyrtidi). Voyage of M. E. Simon to Venezuela; sixth memoir, Clytridæ, Lamprosomidæ and

* Contains new species other than North American.

Eumolpidæ,* by E. Lefevre; *Ephyræa* n. gen. Descriptions of a new genus, and of some new species of Phytophagous Coleoptera (Eumolpidæ),* by E. Lefevre; *Talurus* n. gen., *Alethaxius tuberculifer*, Mexico, n. sp. Entomology at the Universal Exposition of 1889, by A. Léveillé. List of the Coleoptera of Guadaloupe and descriptions of new species, by E. Fletiaux and A. Sallé; 517 species are listed. Contributions to the Indo-Chinese fauna: sixth memoir, Sagridæ, Crioceridæ, Chrysomelidæ, Hispidæ,* by Dr. J. S. Baly. Notice on the genus *Leptarctia* Stretch, G. H. French; describes some new North American varieties. From the bulletins of this society we note the following: *Enosis*,* Mabille (n. gen. Lepid.); *Ischyropteron*,* Bigot (n. gen. Diptera); *Sarothroceras*,* Mabille (n. gen. Lepid.); *Issacaris*,* Fairmaire (n. gen. Coleop.); *Phelister uncistrius*, Marseul (n. sp. Coleop.), Guatemala. *Choristoneura*,* Mabille (n. gen. Lepid.); *Hyda*,* *Stethotrix*,* *Dis*,* Mabille (n. gen. Lepid.); *Malthodes ligulifer* Bergroth (n. sp. Coleop.), California; *Palibothra*,* *Papua** Ragonot (n. gen. Phycitæ). A catalogue of the French species of Cerambycidæ is published in this volume.

ANNALES DE LA SOCIETE ENTOMOLOGIQUE DE BELGIQUE, xxxiii.—Monograph of the European species and those inhabiting neighboring countries of the genus *Tiphia* Fab.,* by H Tournier. Notes on the Perlidæ described by Dr. Rambur, by H. Albarda. Note on *Tæniopteryx nebulosa* L. and *T. prætextata* Burm., by H. Albarda, pl. 1. New Elateridæ, by E. Candeze (see ENT. NEWS, i, p. 53). Documents for a monograph of the Ichneumonidæ of Asiatic Russia,* by Dr. J. Tosquinet. Catalogue of the Coleoptera of the family Gyrinidæ, by G. Severin; 303 species are listed. Pl. II figures the interesting Odonat, *Palæophlebia superstes* Selys.

MEMOIRS DE LA SOCIETE ZOOLOGIQUE DE FRANCE, iii, parts 2 and 3, 1890.—Phosphorescence in myriapods of the family Geophilidæ, by J. Gazagnaire.

BIBLIOTHECA ZOOLOGICA II. VERZEICHNISS DER SCHRIFTEN UBER ZOOLOGIE WELCHE IN DEN PERIODISCHEN WERKEN ENTHALTEN UND VOM JAHRE 1861–80, SELBSTSTANDIG ERSCHIENEN SIND. . . . von Dr. O. Taschenberg; 8th Lieferung, signatur 281–320. Leipzig, Engelman, 1890, pp. 2291–2610 (List of the publications on Zoology which are contained in periodicals and have appeared separately, from 1861–80). This "Lieferung" finishes the Hymenoptera and begins the Coleoptera.

LES ABEILLES.—Organes et Fonctions, Education et Produits, Miel et Cire, par Maurice Girard, Docteur des Sciences Naturelles, etc.; Avec 85, figures dans le texte, 3e Edition Paris: J. B. Bailliere et Fils, 1890 (Bibliotheque Scientifique Contemporaine).

ZOOLOGISCHER ANZEIGER, Oct. 20, 1890.—The losing of liquid in butterflies after their imagonation, by Dr. J. Frenzel. The odorous glands of *Aphlebia bivittata* Brullé (Blattidæ), of Teneriffe, by Dr. H. Krauss.

* Contains new species other than North American.

Doings of Societies.

(Continued from p. 152, vol. i.)

PROCEEDINGS OF THE ENTOMOLOGICAL CLUB OF THE A. A. A. S. OF INDIANAPOLIS, 1890.—Dr. Weed presented a short paper on the habits of *Lixus concavus*.

Prof. Hargitt called attention to early observations on the Canker-worm. He also spoke of a Cecidomyia infesting the tops of *Solidago*, and also presented "Notes upon *Cermatia forceps*."

Prof. Webster spoke of the predaceous habits of *Cermatia* and its preying upon the Croton bug. Mr. Fletcher had observed the insect with Mr. Howard at Washington. Its mode of capturing the Croton bug before devouring it was remarkable. It sprang over its prey, which was thus encaged between many curved legs. He thought that Mr. Hargitt's success in keeping alive the specimens he had confined in a tin canister, was more due to the moisture thus secured than the darkness. He understood that this insect was a lover of damp places, like many other myriopods.

The Club then proceeded to the election of officers for the ensuing year, which resulted as follows:

President, Prof. Herbert Osborn, Ames, Iowa.
Vice-President, Miss Mary E. Murtfeldt, Kirkwood, Mo.
Secretary, Clarence M. Weed, Columbus, Ohio.

Prof. Osborn presented a paper on "The use of Contagious Diseases in destroying Injurious insects."

Prof. Atkinson spoke of some insects of Alabama.

Dr. Weed read a short paper on the oviposition of *Dectes spinosus* in *Ambrosia trifiida*.

Prof. Cook presented some notes on the insects of the year. He said Cut-worms and Saw-flies had been very injurious. The larvæ of *Ægeria tipuliformis* was attacked with a fungus growth like that attacking the white grub. The foliage of the quince and cherry were injured by the first brood of larvæ of Cherry Slug. Road dust was applied with excellent results. Dr. Weed presented a short paper on *Psephenus lecontei*, which, he stated, he had found on the shores of Lake Erie.

Club adjourned to meet in connection with the A. A. A. S. next year.

F. H. WEBSTER,
Secretary.

THE ENTOMOLOGICAL SOCIETY OF WASHINGTON, Oct. 2, 1890.—Messrs. J. M. Stedman, Nathan Banks and F. W. Mally, were elected members of the Society.

Under exhibition of specimens and notes, Dr. Fox exhibited a specimen of a small spider, belonging to the genus *Episinus*, which was stated by Dr. Marx to be an undescribed species.

Dr. Marx called attention to two spiders new to our fauna, one belonging to the European genus *Histopona* taken at Penn-Mar, and also received from South Florida, and the other, a new genus, of uncertain po-

sition, but possibly allied to the Agalenidæ, represented by a single specimen taken on the grounds of the Department.

Mr. Marlatt exhibited a specimen of *Trypeta æqualis* Lw., which he had bred from seed-pods of *xanthium*, and the larval habit of which he had described at a previous meeting of the Society.

Mr. Marlatt then presented a paper on "Some observations on the habits of *Vespa germanica* and *V. cuneata*." The feeding and nesting habits, particularly of the first-named species, were described. Three kinds of nests were mentioned, viz.: the very rare ærial ones, those beneath stumps or stones, and those in open ground; the latter being much the more common. Various insect and mammalian enemies of these wasps were alluded to together with the means employed to destroy the nests when their proximity to dwellings renders them objectionable. Discussed by Messrs. Howard, Schwarz, Fox, Dodge, Stedman, Marlatt and others.

Mr. Howard read a paper entitled, "A new remarkable genus of Encyrtinæ," in which he characterized a new genus and species which possesses the peculiar ramose antennæ hitherto peculiar, in the subfamily Encyrtinæ, to *Tetracnemus diversicornis* of Westwood. Mr. Howard has named the genus *Tanaostigma* and the species *T. coursetiæ* from *Coursetia* (?) *mexicana*, a rare leguminous plant, collected in the Alamos Mountains, Mexico, by Dr. Edward Palmer, and in the ovaries and stigma of which the insect breeds. Discussed by Messrs. Schwarz, Howard and Marlatt.

Dr. Marx favored the Society with an account of his recent experiments to determine whether the bite of *Latrodectus mactans* is poisonous or not. He describes the poison glands of *Latrodectus*, which are very small. He had introduced the poison in various ways into guinea-pigs and rabbits without obtaining any satisfactory results, and proposed to vary and continue his experiments to put the matter of the supposed poisonous nature of the bite of this spider, if possible, beyond doubt. Discussed by Messrs. Schwarz, Howard, Fox and Marlatt.

Mr. Ulke, who was present, gave an interesting description of the habits of *Tachys incurvus* Say, which he had found in numbers in the nests of ants, and which is the first *Carabid* to be determined as truly myrmecophilous. He also described the habits of certain myrmecophelous Staphylinidæ, and exhibited a small collection of Coleoptera made by T. Ulke, illustrating the local fauna of the Black Hills district. Discussed by Messrs. Schwarz, Howard and Marx.

In connection with the subject of local faunas, Mr. J. B. Smith's recent catalogue of the insects of New Jersey was taken up and discussed at length by the Society.

Mr. Townsend submitted for publication a generic synopsis of the first five families of the N. A. Calyptrate Muscidæ.

C. L. MARLATT,
Recording Secretary.

ENTOMOLOGICAL NEWS for November was mailed October 30, 1890.

VOL. I. No. 1.

Entomological News

AND

PROCEEDINGS OF THE ENTOMOLOGICAL SECTION

OF THE

ACADEMY OF NATURAL SCIENCES

OF

PHILADELPHIA.

JANUARY, 1890.

EDITOR:
EUGENE M. AARON.

ADVISORY COMMITTEE:
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EZRA T. CRESSON.
HENRY SKINNER, M.D.
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VOL. I. NO. 2.

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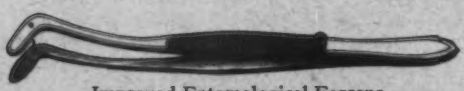

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MARCH, 1890.

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ADVISORY COMMITTEE:
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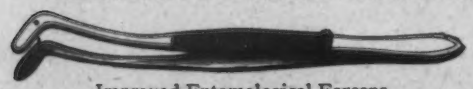

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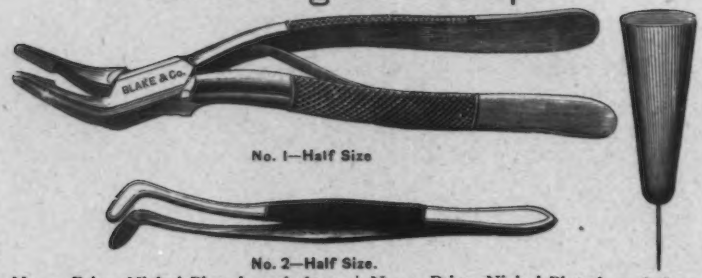

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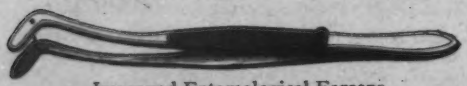

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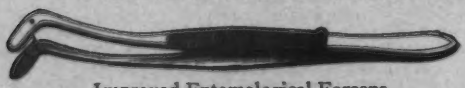

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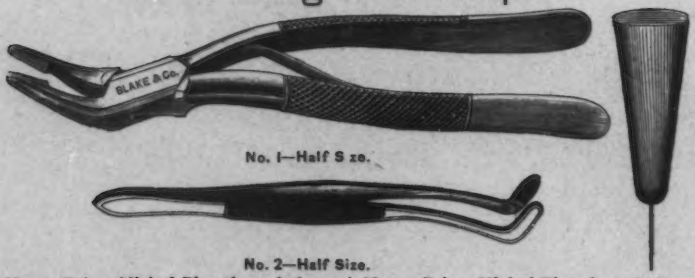

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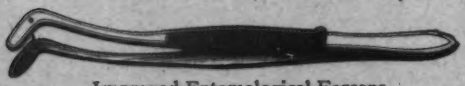

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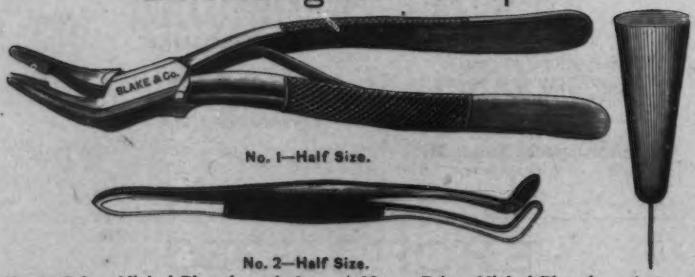

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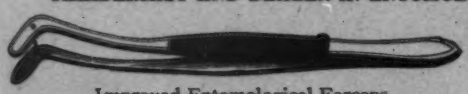

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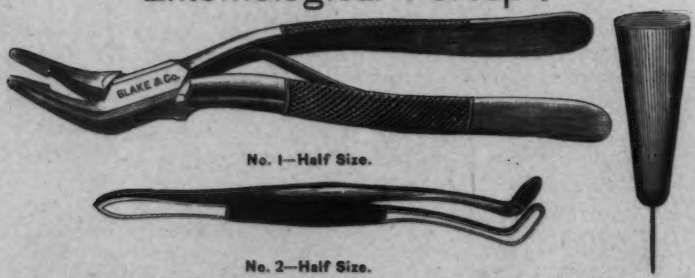

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